7,200 RPM DT01ACA Series Hard Disk Drive



7,200 RPM drive well suited for power-friendly consumer and commercial desktop computers



DT01ACA050 DT01ACA100 DT01ACA200 DT01ACA300

The DT01ACA series is Toshiba's first 3.5-inch hard drive for use in power-friendly consumer and commercial desktop computers. The 7,200 RPM drive series is engineered for high performance and low power for cooler operation.

The DT01ACA Desktop HDDs feature 1 terabyte-perplatter technology in capacities ranging from 500GB to 3TB¹ (1, 2 or 3 platters). With 64MB cache buffer (2TB, and 3TB models) the DT01ACA drives are designed for faster data processing.

The 3.5-inch DT01ACA drives include Advanced Sector Format technology, which utilizes the industry standard 4K byte-per-sector configuration and improved error-correcting code functionality to enhance data integrity while making more efficient use of the storage surface area.

- Up to 3TB¹ of Storage Capacity
- 7,200 RPM Rotational Speed
- Low Power
- Advanced Format 512e

Hard



7,200 RPM DT01ACA Series Hard Disk Drive



	DT01ACA050	DT01ACA100	DT01ACA200	DT01ACA300
Series Overview				
Drive Capacity	500GB	1TB	2TB	3TB
Drive Interface	Serial ATA 3.0 / ATA-8			
Transfer Rate to Host	6 Gb/sec			
Number of user data cylinders	16,383			
Bytes per sector (HOST)	512 byte			
Bytes per sector(DISK)	4,096 byte			
Logical blocks (LBA)	976,773,168	1,953,525,168	3,907,029,168	5,860,533,168
Performance				
Rotational Speed	7,200 RPM			
Average Latency	4.17ms			
Buffer Size	32MB	32MB	64MB	64MB
Single track seek time (read)	0.6 ms	0.6 ms	0.5 ms	0.5 ms
Single track seek time (write)	0.8 ms	0.8 ms	0.6 ms	0.6 ms
Power Requirements				
Voltage	5V (+/- 5%), +12VDC ± 10%			
Read/Write Power	6.4 watts			
Active Idle Power	3.7 watts	3.7 watts	5.2 watts	5.2 watts
Standby Power	1.0 watts			
Sleep Power	1.0 watts			
Physical Size				
Dimensions (W) x (D) x (H)	101.6 mm x 147 mm x 26.1 mm			
Weight	450 g	450 g	680 g	680 g
Environmental				
	00 to 0000			
Temp - Operating	0° to 60°C -40° to -70°C			
Temp - Non-Operating Vibration - Operating	6.57 m/s ² (0.67G) RMS 5 to 500 Hz			
Vibration - Non-Operating	10.2 m/s² (1.04G) RMS 2 to 200 Hz			
Shock - Operating	686 m/s ² (70G) 2ms Half Sine			
Shock - Non-Operating	3430 m/s² (350G) 2ms	3430 m/s² (350G) 2ms	2940 m/s² (300G) 2ms	2940 m/s² (300G)
5	Half Sine	Half Sine	Half Sine	2ms Half Sine
Acoustics				
Acoustics (idle)	25 dB	25 dB	27 dB	27 dB
Acoustics (idle)	26 dB	25 dB	28 dB	28 dB
. ,	20 00	20 00	20 00	20 00
Reliability				
Load/Unload	300,000 times			
Error rate non-recoverable		1/10 ¹⁴ b	it road	

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 1 One Gigabyte (1 GB) means $10^{9} = 1,000,000,000$ bytes using powers of 10. A computer operating system, however, reports storage capacity using powers of 2 for the definition of 1 GB = $2^{30} = 1,073,741,824$ bytes, and therefore shows less storage capacity. Available storage capacity will also be less if the computer includes one or more pre-installed operating systems, pre-installed software applications, or media content. Actual formatted capacity may vary.

Limited Warranty

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2 year (from date of purchase)